RTIP ID# (required) SBD200048

Project Description (clearly describe project)

The proposed project would widen Base Line Road from four to six lanes between Etiwanda Avenue and Americana Way, and widen East Avenue from two to four lanes between Chateau Drive and Day Canyon Drive.

The southbound and northbound I-15 off-ramps at Base Line Road would be realigned and widened from one to three lanes at the terminus of Base Line Road. The northbound on-ramp would be widened from one to two lanes. The southbound on-ramp would be realigned and widened past the pedestrian crossing to two mixed flow lanes, plus one High Occupancy Vehicle (HOV) preferential lane.

The Etiwanda Overhead Bridge, located 350 meters (1,148 feet) north of Base Line Road would be widened to accommodate the new auxiliary lanes for the northbound entrance ramps from Base Line Road. In addition to the Etiwanda Bridge, the following bridges are provided as part of the proposed project:

- The East Avenue Northbound Exit Ramp Undercrossing Bridge is provided for the northbound exit ramp crossing over East Avenue south of Base Line Road.
- The East Avenue Southbound Exit Ramp Undercrossing Bridge located for the southbound exit ramp crossing over East Avenue north of Base Line Road.
- Base Line Road Southbound Entrance Ramp Undercrossing Bridge for the southbound loop entrance ramp is located just
 west of East Avenue and crosses over Base Line Road.
- Base Line Road Northbound Entrance Ramp Undercrossing Bridge for the northbound loop entrance ramp for alternative
 two only, is located just east of East Avenue and the I-15 freeway and crosses over Base Line Road.

As currently proposed the project would require acquisition of right-of-way within all 4 quadrants of the interchange.

The proposed project limits, including improvements, construction staging and construction signage, extend from the I-15 Centerline 1,400 meters (4,600 feet) southwest of Base Line Road (Sta. 103 + 60) to 1,400 meters (4,600 feet) northeast of Base Line Road and a maximum width of 125 meters (410 feet) across the I-15 freeway south and north of the interchange.

Along Base Line Road, the project limits extend 700 meters (2,300 feet) west of East Avenue (just west of Etiwanda Avenue) to 700 meters (2,300 feet) east of East Avenue (just east of Americana Way) and a width of 125 meters (410 feet) across Base Line Road.

Along East Avenue, the project limits extend 600 meters (1,970 feet) north and south of Base Line Road.

The proposed project will also include construction of retaining walls, ramp lighting, ramp metering, concrete curbs, and gutters for drainage, sidewalks, concrete barriers and guardrails.

Type of Project (use Table 1 on instruction sheet) Reconfigure existing interchange.

County San Bernardino	Narrative Location/Route & Postmiles I-15 P.M. 6.3 – 7.1 (0.8 miles)								
	Caltrans Projects – EA# 497100								
Lead Agency: Rancho Cucamonga									
Contact Person Jon Gillespie		Phone# 909-477-2740	Fax#	Email jgillespie@ci.rancho-cucamonga.ca.us					
Hot Spot Pollutant of Concern (Check one or both) PM2.5 x PM10 x									
Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)									

CATEGORI AL EXCLUSIO (NEPA)	EA or Draft N EIS	FONSI or Final EIS	PS&E or Construction	OTHER						
Scheduled Date of Federal Action:										
Current Programming Dates as appropriate										
	PE/Environmental ENG ROW			CON						
Start	Oct 2006	Jan 2005	Nov 2008	Jun 2010						
End	Oct 2008	May 2010	May 2010	Dec 2011						

Project Purpose and Need (Summary): (attach additional sheets as necessary)

Project Purpose

The purpose of the project is to: 1) alleviate existing and future traffic congestion at the I-15/Base Line Road ramps during peak hours; 2) accommodate the future projected increase in traffic, including truck traffic, due to rapid population and development growth in the Cities of Rancho Cucamonga and Fontana; 3) alleviate the unsatisfactory conditions associated with the interchange configuration, specifically the intersection of Base Line Road and East Avenue (East Avenue bisects the existing diamond interchange between the northbound and southbound ramps); and 4) increase storage space for left-turning vehicles at Base Line Road and the I-15 ramps.

Project Need

The Base Line Road/I-15 interchange is currently experiencing substantial traffic congestion and delays and the interchange is operating at an unacceptable level of service (LOS) during peak hours. The Cities of Rancho Cucamonga and Fontana are experiencing rapid growth in population and there has been a substantial amount of residential and commercial development in the project area. Therefore, it is anticipated that traffic congestion and delays at the interchange will continue to deteriorate over time.

The primary operational deficiency associated with the existing interchange configuration is the intersection of Base Line Road and East Avenue bisecting the diamond interchange between the southbound and the northbound I-15 ramps. In addition, the existing dual left turn lanes from Base Line Road to the southbound and northbound I-15 ramps do not have sufficient storage capacity to accommodate the volume of left-turning vehicles during peak hours. Therefore, the interchange will need to be improved in order to operate at an acceptable LOS in the future.

The I-15/Base Line Road interchange improvement project does not include improvements to the freeway mainline. Currently, the San Bernardino Associated Governments (SANBAG) is working on a corridor study for the I-15 mainline, which will address forecast operational deficiencies on the freeway mainline.

Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)

The existing land uses within the vicinity of the project interchange include single family residences and commercial structures. There are no large generators of diesel truck traffic within the project area.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility LOS D/D, Total AADT = 174,800*, Truck AADT = 23,250* (13.3%), Year 2010, Along I-15

* These traffic volumes apply to both the No Build and Build Alternatives.

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility LOS F/F, Total AADT = 229,800*, Truck AADT = 30,550* (13.3%), Year 2030, Along I-15

* These traffic volumes apply to both the No Build and Build Alternatives.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Base Line Road

No Build: LOS E/F, Total AADT = 26,600, Truck AADT = 1,383 (5.3%), Year 2010 Build: LOS C/C, Total AADT = 26,600, Truck AADT = 1,383 (5.3%), Year 2010

East Avenue

No Build: LOS E/F, Total AADT = 7,100, Truck AADT = 234 (3.3%), Year 2010 Build: LOS C/C, Total AADT = 7,100, Truck AADT = 234 (3.3%), Year 2010

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Base Line Road

No Build: LOS F/F, Total AADT = 42,900, Truck AADT = 4,462 (10.4%), Year 2030 Build: LOS C/D, Total AADT = 42,900, Truck AADT = 4,462 (10.4%), Year 2030

East Avenue

No Build: LOS F/F, Total AADT = 11,200, Truck AADT = 930 (8.3%), Year 2030 Build: LOS C/D, Total AADT = 11,200, Truck AADT = 930 (8.3%), Year 2030

Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*) See attached analysis

Comments/Explanation/Details (attach additional sheets as necessary)

See attached analysis

Particulate Matter (PM₁₀ and PM_{2.5}) Analysis

The proposed project is within a nonattainment area for federal PM2.5 and PM₁₀ standards. Therefore, per 40 CFR Part 93 analyses are required for conformity purposes. However, the EPA does not require hotspot analyses, qualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) because of the following reasons:

- i. The proposed project is not a new or expanded highway project. The proposed project is an interchange reconstruction project that does not increase the capacity of I-15. This type of project improves freeway interchange operations by reducing traffic congestion and improving merge operations. Based on the *Traffic Analysis* (LSA Associates, Inc., October 2006), the proposed project would increase the capacity of Base Line Road and East Avenue. However, the traffic volumes along Base Line Road and East Avenue would not exceed the 125,000 average daily trips threshold for a POAQC. Although the total truck percentages along Base Line Road and East Avenue would exceed the eight percent threshold the total truck AADTs would not exceed the 10,000 vehicle threshold for POAQC. In addition, the proposed project would not increase the traffic volumes along the roadways within the project vicinity. The future traffic volumes along Baseline Road and East Avenue are shown in Table A.
- ii. The proposed project does not affect intersections that are at level of service (LOS) D, E, or F with a significant number of diesel vehicles. Based on the *Traffic Analysis*, the proposed project would reduce the delay and improve the LOS at intersections within the project vicinity. The LOS conditions in the project vicinity with and without the proposed project are shown in Tables B, C, and D.
- iii. The proposed project does not include the construction of a new bus or rail terminal.
- iv. The proposed project does not expand an existing bus or rail terminal.

Table A: 2030 Average Daily Traffic Volumes (Total AADT/Truck AADT)

Roadway Link	Without Project Traffic Volumes	Alternative 2 Traffic Volumes	Alternative 4 Traffic Volumes
Base Line Road between Etiwanda Avenue	31,200 / 3,345	31,200 / 3,345	31,200 / 3,345
and Southbound Ramps			
Base Line Road between Southbound Ramps	38,100 / 3,962	38,100 / 3,962	38,100 / 3,962
and East Avenue			
Base Line Road Between East Avenue and	42,900 / 4,462	42,900 / 4,462	42,900 / 4,462
Northbound Ramps			
Base Line Road between Northbound Ramps	38,600 / 4,014	38,600 / 4,014	38,600 / 4,014
and Americana Way			
East Avenue North of Baseline Road	11,200 / 930	11,200 / 930	11,200 / 930
East Avenue South of Baseline Road	10,900 / 905	10,900 / 905	10,900 / 905

Source: LSA Associates, Inc., October 2006.

Table B: 2030 without Project Intersection Levels of Service

			A.M. Peak Hour			P.M. Peak Hour		
	Intersection	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	
1.	I-15 Southbound Ramps/Base Line Road	2.14	>100	F	1.22	>100	F	
2.	East Avenue/Base Line Road	2.24	>100	F	1.94	>100	F	
3.	I-15 Northbound Ramps/Base Line Road	0.91	>100	F	1.50	95.9	F	
4.	Americana Way/Base Line Road	0.69	21.1	C	0.88	19.6	В	

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

Table C: 2030 with Proposed Project (Alternative 2) Intersection Levels of Service

			A.M. Peak Hour			P.M. Peak Hour		
	Intersection	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	
1.	I-15 Southbound Ramps/Base Line Road	0.66	15.2	В	0.48	9.3	Α	
2.	East Avenue/Base Line Road	0.93	31.2	C	0.86	38.0	D	
3.	I-15 Northbound Ramps/Base Line Road	0.46	15.2	В	0.77	21.8	C	
4.	Americana Way/Base Line Road	0.77	22.6	C	0.80	20.0	В	

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

Table D: 2030 with Proposed Project (Alternative 2E) Intersection Levels of Service

			A.M. Peak Hour			P.M. Peak Hour		
	Intersection	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	
1.	I-15 Southbound Ramps/Base Line Road	0.65	16.2	В	0.58	11.4	В	
2.	East Avenue/Base Line Road	0.71	27.8	C	0.70	25.2	C	
3.	I-15 Northbound Ramps/Base Line Road	0.61	25.3	C	0.98	35.2	D	
4.	Americana Way/Base Line Road	0.66	21.6	C	0.92	28.7	C	

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM_{10} or $PM_{2.5}$ violation.